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Title: Large Game Movement between Los Alamos National Laboratory and Pueblo de San Ildefonso

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Large Game Movement between Los Alamos National Laboratory and Pueblo de San Ildefonso



Cover photo: Bull elk photographed moving in an unknown direction near the Pueblo de San Ildefonso and Technical Area 54 boundary.

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Los Alamos Field Office

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INTRODUCTION

Movement by wildlife is a fundamental process that allows for the distribution of animal populations. The level and scale of movement varies by species, time of year, and whether long-distance migration plays a role in a species' life history. Many species do not have regular migration patterns, but still have movement patterns essential to their survival. Changes in the environment such as wildfires, drought, and anthropogenic activities have the potential to influence the movements of animals.

Northern New Mexico, including Los Alamos National Laboratory (LANL), is home to Rocky Mountain elk (*Cervus canadensis nelsoni*) and mule deer (*Odocoileus hemionus*). These large game species are an important resource for local communities. Elk and deer have long been known to move from higher elevations in the summer to lower elevations in the winter (Dalke et al. 1965).

Past studies of elk and deer in the Los Alamos area have shown that many animals do not migrate and some stay on LANL property year-round (Biggs et al. 1998, Wolf 2003). Rupp and Rupp (2010) modeled elk movement in the Jemez Mountains and on the Pajarito Plateau, using data from GPS collars deployed on elk in the early 2000s. They identified elk in the area as “quasi-migratory”, and found that snow depth less than 8 cm predicted the presence of elk on the landscape during winter months. Bennett (2006) modelled and mapped movement corridors and pinch points based on elk telemetry data and later Bennett et al. (2014) further evaluated animal-vehicle accident data in relation to the pinch points along travel corridors and arterial roads on LANL. Snow depth is highly variable among years under the ongoing warming climate conditions in the area (Bennett et al. 2020).

Questions have come up in the past regarding whether LANL operations affect the migratory movement of elk and deer, specifically across LANL boundaries with neighboring

agencies or Pueblos. These comments and the inconsistent migratory behavior of elk and deer in this area led to a study to examine elk and deer movement between LANL and Pueblo de San Ildefonso lands. The purpose of this study was to document the movement of these large game species near the boundary of LANL with Pueblo de San Ildefonso lands using remote-triggered wildlife cameras with a focus on the overall numbers of animals and seasonal movement.

METHODS

This study took place on LANL property along the northern side of Technical Area (TA)-54 and the southern side of TA-05, adjacent to Pueblo de San Ildefonso property. Four large game movement corridors crossing the LANL/Pueblo de San Ildefonso boundary in these areas were identified in Bennett (2006). These corridor locations were surveyed by LANL biologists to identify trails actively in use by large game. Remote-triggered wildlife cameras were deployed along the trails on LANL property (Figure 1).

This study used Bushnell Trophy Cam wildlife cameras with a detection range of approximately 15 meters and Reconyx Hyperfire wildlife cameras with a detection range of approximately 30 meters. The cameras were set to record three images per encounter with a five-second delay between encounters. Each camera was secured in a protective case, mounted on a tree, and locked with a LANL lock. Cameras were placed perpendicular to the identified trails to photograph large game moving towards or away from Pueblo de San Ildefonso property, and were positioned to avoid washed out photos.

Three game cameras were deployed in April 2013 with two additional cameras deployed in January 2014. LANL biologists checked the battery and memory levels of each camera every two months between May 2013 and January 2015. All five game cameras were removed at the end of January 2015. All images were reviewed to screen and select images with large game and

these data were entered into an Excel spreadsheet. For each encounter, parameters were recorded that included location, date, time, species, number of animals, sex, presence of young, and whether or not the animal was moving towards or away from Pueblo de San Ildefonso lands. See Appendix A for representative photos of the large game species and their movements between LANL and Pueblo de San Ildefonso, and Appendix B for a summary of the deer and elk encounters recorded at each camera location.

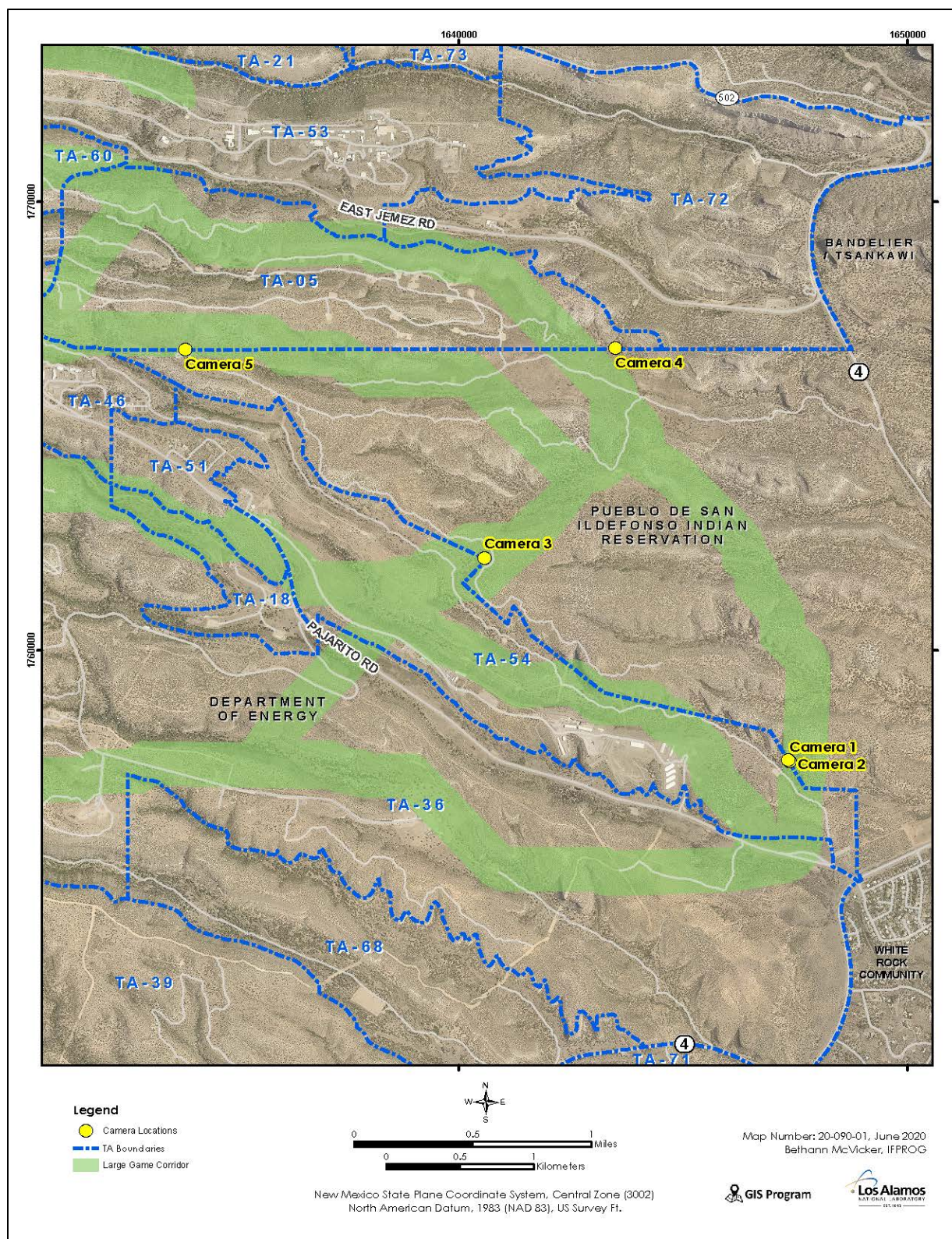


Figure 1. Camera locations on the boundary of Pueblo de San Ildefonso and LANL.

RESULTS

The wildlife cameras recorded 2,019 animal encounters over the time that they were deployed from May 2013 to January 2015. Of those, 1,893 detections were of either deer or elk. The group size for elk ranged from one individual to 166 elk. The group size for deer ranged from one individual to six deer. The same animal(s) may have been photographed multiple times over the course of the study. After reviewing the pictures, 541 (29%) encounters were documented moving away from Pueblo de San Ildefonso, 1,104 (58%) were moving towards Pueblo de San Ildefonso, and in 248 (13%) detections, the direction the animal was moving could not be determined.

We further broke down these results by season (Figure 2). In the spring (March-May), 499 encounters with large game animals were recorded, in which 139 (28%) of detections were moving away from Pueblo de San Ildefonso, 303 (61%) were moving towards Pueblo de San Ildefonso, and 57 (11%) were of unknown direction. In the summer (June-August), 380 encounters were recorded with 154 (41%) moving away from Pueblo de San Ildefonso lands, 171 (45%) moving towards, and 55 (14%) of unknown direction. Winter movements (December-February) totaled 549 encounters with 109 (20%) moving away from Pueblo de San Ildefonso lands, 360 (66%) moving towards, and 80 (15%) moving in an unknown direction. During the fall season, (September-November), 128 (30%) of the detections were moving away from Pueblo de San Ildefonso, 262 (61%) were moving towards, and 43 (10%) were moving in an unknown direction. There were 32 encounters recorded during this study with an unknown date and were therefore excluded from the seasonal totals. See Appendix B for summary tables of these data.

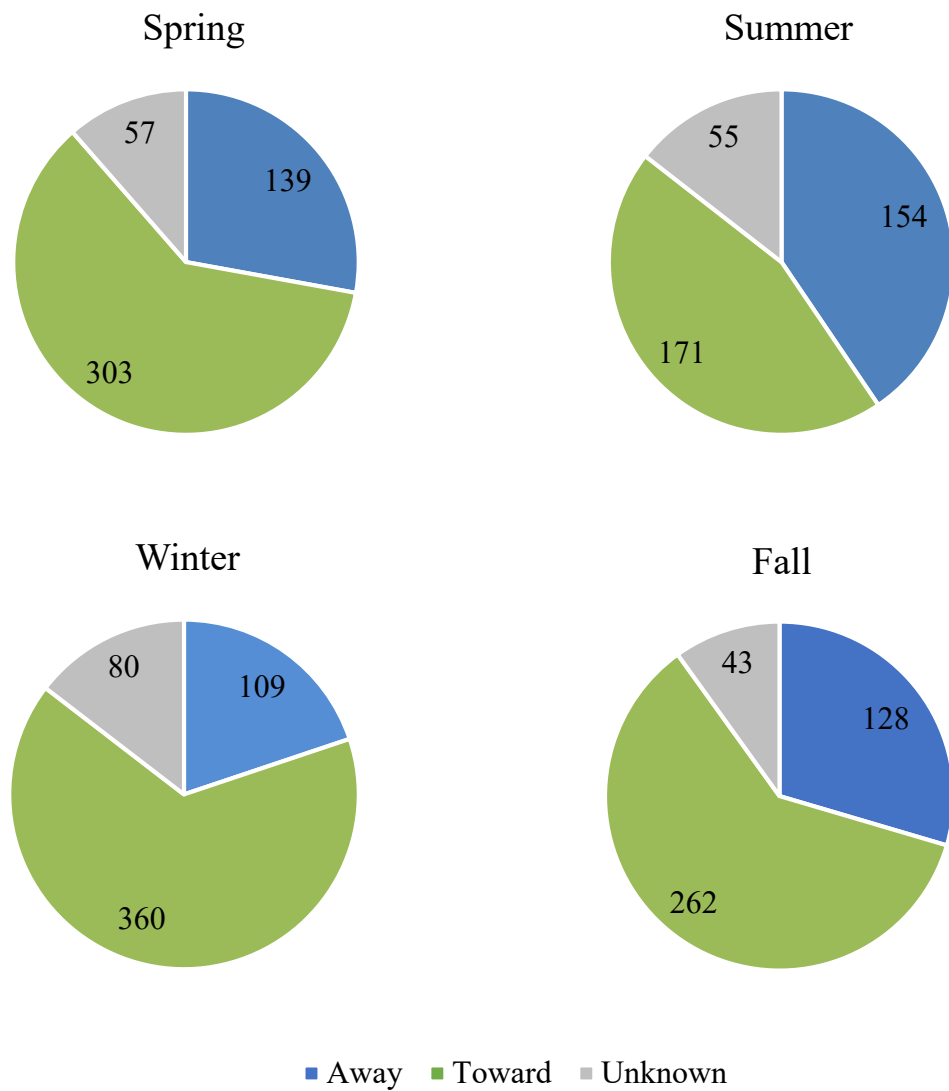


Figure 2. Large game movement by season either away from or toward Pueblo de San Ildefonso property, or in an unknown direction. Summer includes all deer and elk detections between June 1st and August 30th. Spring includes March 1st through May 31st. Winter includes December 1st through February 28th. Fall includes September 1st through November 30th.

DISCUSSION

Our results document that large game does move between Pueblo de San Ildefonso and LANL in the vicinity of TA-54 and TA-05. Through the course of the study, the same animals could be photographed multiple times as they move through the area. Readers should not interpret the results by assuming that over 1,800 elk and deer occur in this area, but rather that there were over 1,800 detections through the course of the study and elk and deer use this area frequently.

A larger percentage of large game were documented moving towards Pueblo de San Ildefonso from LANL than in the opposite direction. We do not know the reason for these asymmetrical detections. There was a higher percentage of movement towards Pueblo de San Ildefonso in the fall, spring, and winter months compared to the summer.

Hunting is an important part of the culture and livelihood for those who live in the Pueblo de San Ildefonso. Their bow hunting season is from September 1st through the 30th and their rifle hunting is from November 3rd through January 31st. Hunting is not allowed on LANL property. We hypothesized that pressure on the elk and deer during hunting season could result in movements away from Pueblo de San Ildefonso, as found in a 2001 study observing elk movement during hunting seasons in Colorado (Conner et al. 2001). However, the onset of hunting season in the fall and winter does not seem to cause a disproportionate amount of movement compared to other seasons. In fact, large game movements towards Pueblo de San Ildefonso lands were the highest during the winter season.

The results of this study suggest that LANL operations are not hindering the movement of deer and elk between LANL and the Pueblo of San Ildefonso in the vicinity of TA-54 and TA-05.

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We'd like to thank various student and support staff for help checking cameras during this study. Special thanks to J. Berryhill, L. Hansen, A. Sanchez, J. Stanek, J. Rodriguez, and B. Thompson for comments on earlier drafts of this report.

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APPENDIX A – REPRESENTATIVE PHOTOS OF LARGE GAME MOVEMENT WITHIN THE STUDY AREA



Figure A1. Cow elk and calf moving towards Pueblo de San Ildefonso at the TA-54 boundary of Los Alamos National Laboratory. Captured on Camera 1.



Figure A2. Doe and fawn moving away from Pueblo de San Ildefonso at the TA-54 boundary of Los Alamos National Laboratory. Captured on Camera 1.



Figure A3. Deer moving in an unknown direction along the boundary between Pueblo de San Ildefonso and TA-54. Captured on camera 1.



Figure A4. Small herd of elk moving towards Pueblo de San Ildefonso from TA-54. Captured on camera 2.



Figure A5. Bull elk moving towards Pueblo de San Ildefonso from TA-54. Captured on camera 3.



Figure A6. Mule deer moving away from Pueblo de San Ildefonso to TA-54. Captured on camera 3.



Figure A7. Mule deer moving away from Pueblo de San Ildefonso to TA-05. Captured on camera 4.



Figure A8. Two cow elk moving toward Pueblo de San Ildefonso from TA-05. Captured on camera 4.



Figure A9. Elk moving toward Pueblo de San Ildefonso from TA-05. Captured on camera 5.



Figure A10. Cow elk and calf moving away from Pueblo de San Ildefonso from TA-05. Captured on camera 5.

APPENDIX B – SUMMARY OF DATA

Table 1. Large game detections on Camera 1.

Camera Location	Date	Time	Season	Species Name	Number of animals	Sex	Moving Toward or Away from Pueblo de San Ildefonso
1	10/1/2012	9:41 PM	Fall	Deer	1	M	Away
1	5/7/2013	8:55 AM	Spring	Deer	1	F	Toward
1	5/7/2013	8:56 AM	Spring	Deer	2	F	Toward
1	7/5/2013	7:54 PM	Summer	Deer	1	M	Away
1	7/6/2013	8:17 AM	Summer	Deer	2	M	Toward
1	7/6/2013	8:20 AM	Summer	Deer	1	M	Toward
1	7/6/2013	8:20 AM	Summer	Deer	1	M	Toward
1	7/18/2013	6:04 AM	Summer	Deer	1	U	Away
1	7/19/2013	10:48 AM	Summer	Deer	1	U	Unknown
1	7/19/2013	10:49 AM	Summer	Deer	1	M	Unknown
1	7/21/2013	5:29 PM	Summer	Deer	1	M	Unknown
1	8/5/2013	2:03 PM	Summer	Deer	1	M	Toward
1	8/26/2013	1:31 PM	Summer	Deer	1	M	Away
1	8/29/2013	8:03 AM	Summer	Deer	2	M	Toward
1	8/29/2013	8:30 AM	Summer	Deer	1	M	Toward
1	8/31/2013	10:15 AM	Summer	Deer	1	M	Toward
1	9/27/2013	10:25 AM	Fall	Deer	3	F	Toward
1	10/4/2013	7:57 AM	Fall	Deer	1	M	Toward
1	10/20/2013	7:16 AM	Fall	Deer	5	M	Toward
1	10/24/2013	7:00 PM	Fall	Deer	1	M	Away
1	11/11/2013	7:15 AM	Fall	Elk	9	U	Toward
1	11/16/2013	4:31 AM	Fall	Deer	1	M	Toward
1	11/17/2013	8:44 AM	Fall	Deer	1	M	Toward
1	11/17/2013	1:44 PM	Fall	Deer	4	F	Away
1	11/18/2013	12:08 AM	Fall	Elk	1	M	Unknown
1	11/29/2013	1:30 PM	Fall	Elk	2	F	Toward
1	12/9/2013	8:16 AM	Winter	Elk	166	F/ M	Toward
1	12/10/2013	12:12 AM	Winter	Elk	1	F	Away
1	12/10/2013	5:05 PM	Winter	Elk	1	F	Toward
1	12/10/2013	5:12 PM	Winter	Elk	2	F	Toward
1	12/10/2013	6:38 PM	Winter	Elk	3	F	Away
1	12/10/2013	6:39 AM	Winter	Elk	3	F	Toward

1	1/2/2014	8:50 AM	Winter	Elk	30	M/ F	Toward
1	1/3/2014	6:53 AM	Winter	Elk	1	F	Unknown
1	1/7/2014	6:52 PM	Winter	Elk	7	M/ F	Away
1	1/20/2014	12:48 PM	Winter	Deer	1	M	Toward
1	1/21/2014	4:53 AM	Winter	Deer	1	M	Unknown
1	1/21/2014	6:43 AM	Winter	Deer	1	F	Unknown
1	1/21/2014	9:00 PM	Winter	Deer	1	M	Away
1	1/24/2014	4:53 AM	Winter	Deer	3	F	Toward
1	1/25/2014	12:37 PM	Winter	Deer	1	F	Away
1	1/27/2014	2:35 AM	Winter	Deer	1	M	Away
1	1/28/2014	5:25 AM	Winter	Deer	1	M	Away
1	1/29/2014	3:34 AM	Winter	Deer	1	M	Away
1	1/29/2014	7:53 AM	Winter	Deer	2	F	Unknown
1	1/29/2014	7:09 PM	Winter	Deer	1	M	Toward
1	1/30/2014	4:32 AM	Winter	Deer	1	M	Toward
1	1/30/2014	7:32 AM	Winter	Deer	2	F	Away
1	2/1/2014	2:44 AM	Winter	Deer	1	M	Away
1	2/5/2014	3:54 AM	Winter	Deer	1	M	Toward
1	2/11/2014	3:42 AM	Winter	Deer	1	F	Away
1	2/12/2014	8:24 AM	Winter	Deer	6	F	Toward
1	2/21/2014	6:01 AM	Winter	Deer	1	F	Away
1	2/28/2014	6:05 PM	Winter	Deer	1	M	Away
1	3/1/2014	2:26 AM	Spring	Deer	1	F	Away
1	3/4/2014	7:28 AM	Spring	Elk	1	F	Unknown
1	3/6/2014	6:08 AM	Spring	Deer	1	F	Away
1	3/8/2014	9:39 AM	Spring	Deer	1	F	Toward
1	3/13/2014	7:53 AM	Spring	Elk	1	F	Toward
1	3/13/2014	7:57 AM	Spring	Elk	15	F/U	Toward
1	3/15/2014	7:54 AM	Spring	Elk	2	F	Unknown
1	3/18/2014	10:22 PM	Spring	Elk	1	F	Toward
1	3/19/2014	5:21 PM	Spring	Elk	1	F	Toward
1	3/20/2014	7:19 AM	Spring	Elk	2	F	Toward
1	3/20/2014	7:22 AM	Spring	Elk	8	F/U	Toward
1	3/20/2014	7:27 AM	Spring	Elk	5	F	Away
1	3/20/2014	7:51 AM	Spring	Deer	1	F	Toward
1	3/20/2014	7:53 AM	Spring	Elk	2	F	Away
1	3/20/2014	8:30 AM	Spring	Elk	1	F	Toward
1	3/21/2014	6:48 AM	Spring	Elk	5	F	Toward
1	3/31/2014	7:05 AM	Spring	Elk	1	F	Toward
1	3/31/2014	7:08 AM	Spring	Elk	2	F	Toward

1	4/7/2014	4:20 PM	Spring	Elk	3	F	Away
1	4/7/2014	4:35 PM	Spring	Elk	1	M	Away
1	4/7/2014	5:55 PM	Spring	Elk	2	F	Away
1	4/8/2014	9:35 AM	Spring	Elk	2	F	Unknown
1	4/9/2014	8:54 AM	Spring	Deer	3	M/ F	Toward
1	4/9/2014	6:24 PM	Spring	Deer	1	M	Away
1	4/10/2014	5:31 AM	Spring	Elk	1	F	Unknown
1	4/12/2014	7:22 AM	Spring	Elk	1	M	Unknown
1	4/15/2014	6:01 AM	Spring	Elk	2	M/ F	Toward
1	4/15/2014	6:06 AM	Spring	Elk	4	F/U	Toward
1	4/16/2014	5:38 AM	Spring	Elk	1	F	Toward
1	4/18/2014	4:46 AM	Spring	Elk	1	F	Unknown
1	4/24/2014	4:53 AM	Spring	Deer	1	F	Away
1	4/24/2014	2:19 PM	Spring	Deer	1	F	Away
1	4/29/2014	5:39 AM	Spring	Elk	1	F	Toward
1	4/29/2014	9:10 AM	Spring	Deer	1	F	Unknown
1	4/30/2014	6:46 PM	Spring	Elk	5	F/U	Away
1	4/30/2014	7:24 PM	Spring	Elk	2	F	Away
1	5/2/2014	5:04 PM	Spring	Deer	1	F	Unknown
1	5/2/2014	5:43 PM	Spring	Elk	1	F	Away
1	5/3/2014	5:36 AM	Spring	Deer	3	U	Toward
1	5/3/2014	6:21 AM	Spring	Elk	3	F	Toward
1	5/3/2014	7:09 AM	Spring	Elk	9	F/U	Toward
1	5/4/2014	5:15 AM	Spring	Elk	1	U	Unknown
1	5/4/2014	5:52 PM	Spring	Deer	1	M	Away
1	5/9/2014	11:34 PM	Spring	Deer	1	U	Away
1	5/12/2014	7:54 PM	Spring	Elk	3	U	Away
1	5/14/2014	4:50 AM	Spring	Elk	4	U	Toward
1	5/14/2014	11:40 AM	Spring	Elk	2	U	Toward
1	5/16/2014	5:29 AM	Spring	Elk	1	U	Toward
1	5/16/2014	8:12 AM	Spring	Deer	1	U	Toward
1	5/19/2014	7:39 AM	Spring	Deer	1	U	Unknown
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1	5/23/2014	7:19 AM	Spring	Deer	1	F	Away
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1	5/24/2014	8:49 PM	Spring	Elk	4	F	Away
1	5/26/2014	1:01 PM	Spring	Elk	1	F	Unknown

1	5/26/2014	7:37 PM	Spring	Deer	4	F	Away
1	5/27/2014	7:02 PM	Spring	Elk	1	F	Away
1	5/28/2014	6:54 AM	Spring	Elk	1	F	Toward
1	5/28/2014	10:22 PM	Spring	Elk	3	F	Unknown
1	5/29/2014	7:51 PM	Spring	Elk	2	F	Away
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1	6/8/2014	4:01 PM	Summer	Deer	1	M	Unknown
1	6/10/2014	8:05 AM	Summer	Deer	3	F	Toward
1	6/10/2014	7:08 PM	Summer	Deer	1	M	Unknown
1	6/10/2014	8:41 PM	Summer	Deer	1	U	Unknown
1	6/12/2014	4:59 AM	Summer	Deer	2	U	Away
1	6/12/2014	11:17 AM	Summer	Deer	3	F	Toward
1	6/14/2014	8:22 AM	Summer	Elk	8	M/ F	Unknown
1	6/14/2014	9:12 PM	Summer	Deer	2	M	Away
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1	6/22/2014	5:48 AM	Summer	Deer	1	M	Toward
1	6/22/2014	5:31 PM	Summer	Elk	1	F	Toward
1	6/23/2014	7:16 AM	Summer	Deer	3	F	Toward
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1	6/24/2014	4:57 PM	Summer	Elk	1	F	Toward
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1	6/26/2014	4:42 AM	Summer	Deer	1	F	Unknown
1	6/26/2014	11:14 PM	Summer	Elk	1	F	Toward
1	6/27/2014	4:17 AM	Summer	Elk	1	M	Toward
1	6/27/2014	5:41 AM	Summer	Deer	1	M	Unknown
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1	6/27/2014	8:49 PM	Summer	Elk	1	F	Away
1	6/28/2014	1:52 AM	Summer	Elk	2	F	Away
1	6/28/2014	9:23 AM	Summer	Deer	1	M	Toward
1	6/28/2014	7:55 PM	Summer	Deer	1	M	Away
1	6/29/2014	12:32 AM	Summer	Deer	1	F	Away
1	6/30/2014	12:06 AM	Summer	Deer	1	F	Away
1	7/2/2014	8:02 PM	Summer	Elk	4	F	Away
1	7/3/2014	9:41 AM	Summer	Deer	1	M	Toward
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1	7/3/2014	6:40 PM	Summer	Elk	3	F	Unknown
1	7/3/2014	7:15 PM	Summer	Elk	1	F	Away
1	7/3/2014	7:24 PM	Summer	Elk	1	F	Unknown
1	7/5/2014	8:43 PM	Summer	Deer	1	M	Away
1	7/8/2014	9:17 PM	Summer	Deer	1	M	Away
1	7/9/2014	9:20 AM	Summer	Deer	4	M	Toward
1	7/13/2014	3:42 PM	Summer	Deer	1	M	Away
1	7/14/2014	4:12 PM	Summer	Elk	1	F	Away
1	7/14/2014	5:53 PM	Summer	Elk	1	F	Unknown
1	7/15/2014	11:51 AM	Summer	Deer	1	M	Toward
1	7/18/2014	7:23 AM	Summer	Deer	1	M	Unknown
1	7/18/2014	8:07 AM	Summer	Deer	1	M	Toward
1	7/21/2014	8:47 AM	Summer	Deer	1	M	Unknown
1	7/23/2014	6:45 AM	Summer	Deer	1	M	Toward
1	7/23/2014	11:04 AM	Summer	Deer	2	F	Away
1	7/23/2014	8:31 PM	Summer	Deer	1	M	Away
1	7/24/2014	2:43 PM	Summer	Elk	1	F	Unknown
1	7/26/2014	8:08 AM	Summer	Deer	1	M	Unknown
1	7/27/2014	8:22 AM	Summer	Deer	1	M	Unknown
1	7/29/2014	6:36 AM	Summer	Deer	1	M	Toward
1	7/29/2014	7:01 AM	Summer	Deer	2	M	Away
1	7/31/2014	5:55 AM	Summer	Elk	1	F	Toward
1	8/2/2014	9:00 PM	Summer	Deer	1	F	Toward
1	8/5/2014	9:14 AM	Summer	Deer	3	M	Toward
1	8/5/2014	7:21 PM	Summer	Deer	3	M	Away
1	8/5/2014	9:48 PM	Summer	Deer	2	M	Away
1	8/12/2014	7:48 AM	Summer	Deer	1	M	Toward
1	8/12/2014	7:59 AM	Summer	Deer	1	M	Unknown
1	8/13/2014	7:33 AM	Summer	Deer	1	M	Unknown
1	8/17/2014	7:07 AM	Summer	Deer	2	M	Away
1	8/21/2014	1:32 PM	Summer	Deer	1	M	Toward

1	8/21/2014	7:18 PM	Summer	Deer	2	M	Away
1	8/22/2014	7:46 AM	Summer	Elk	1	M	Away
1	8/27/2014	3:44 PM	Summer	Deer	1	M	Away
1	8/28/2014	9:28 AM	Summer	Deer	1	M	Unknown
1	8/29/2014	8:39 AM	Summer	Deer	3	M	Unknown
1	8/29/2014	8:42 AM	Summer	Deer	1	M	Unknown
1	8/29/2014	8:48 AM	Summer	Deer	1	M	Toward
1	8/29/2014	9:53 AM	Summer	Deer	1	M	Unknown
1	8/29/2014	9:54 AM	Summer	Deer	3	M	Toward
1	8/30/2014	9:07 PM	Summer	Elk	1	M	Away
1	9/4/2014	1:49 AM	Fall	Elk	1	M	Away
1	9/5/2014	6:35 AM	Fall	Elk	1	M	Toward
1	9/9/2014	5:36 AM	Fall	Deer	1	M	Toward
1	9/10/2014	4:12 AM	Fall	Elk	1	M	Unknown
1	9/14/2014	9:51 AM	Fall	Deer	1	M	Toward
1	9/19/2014	7:13 AM	Fall	Deer	1	M	Away
1	9/20/2014	9:17 AM	Fall	Deer	2	M	Toward
1	9/21/2014	6:10 AM	Fall	Elk	2	F	Unknown
1	9/21/2014	7:25 AM	Fall	Elk	2	F	Unknown
1	9/21/2014	7:30 AM	Fall	Elk	3	M/ F	Toward
1	9/21/2014	7:57 AM	Fall	Deer	1	M	Away
1	9/26/2014	8:39 AM	Fall	Deer	2	M	Toward
1	9/27/2014	12:59 PM	Fall	Deer	1	M	Toward
1	9/28/2014	7:22 PM	Fall	Elk	9	F	Away
1	10/2/2014	2:50 AM	Fall	Elk	3	F	Unknown
1	10/2/2014	7:22 PM	Fall	Deer	1	M	Away
1	10/3/2014	7:00 PM	Fall	Elk	4	M/ F	Away
1	10/3/2014	7:06 PM	Fall	Elk	1	F	Away
1	10/3/2014	7:11 PM	Fall	Elk	1	M	Away
1	10/4/2014	7:40 AM	Fall	Deer	3	M	Toward
1	10/5/2014	7:28 AM	Fall	Deer	4	M	Toward
1	10/5/2014	7:40 AM	Fall	Deer	1	M	Toward
1	10/6/2014	9:09 PM	Fall	Deer	1	F	Away
1	10/7/2014	10:09 AM	Fall	Deer	1	F	Toward
1	10/8/2014	7:46 AM	Fall	Elk	1	U	Unknown
1	10/8/2014	8:08 AM	Fall	Deer,Elk	4	M/ F	Toward
1	10/10/2014	6:39 PM	Fall	Elk	1	M	Away
1	10/14/2014	2:48 AM	Fall	Elk	1	F	Unknown
1	10/14/2014	8:59 AM	Fall	Deer	4	M	Toward

1	10/21/2014	3:52 PM	Fall	Elk	1	M	Away
1	10/22/2014	7:59 AM	Fall	Deer	1	M	Toward
1	10/22/2014	2:53 PM	Fall	Elk	2	F	Toward
1	10/24/2014	5:05 PM	Fall	Elk	10	F	Away
1	10/24/2014	5:09 PM	Fall	Elk	4	F	Away
1	10/24/2014	5:34 PM	Fall	Elk	1	M	Away
1	10/24/2014	5:44 PM	Fall	Elk	8	F	Away
1	10/25/2014	10:27 PM	Fall	Elk	1	F	Toward
1	10/26/2014	7:09 AM	Fall	Deer	1	M	Toward
1	10/26/2014	11:10 AM	Fall	Deer	1	F	Toward
1	10/28/2014	6:09 PM	Fall	Elk	3	M/ F	Away
1	10/29/2014	4:29 AM	Fall	Deer	3	M/ F	Away
1	10/30/2014	5:52 PM	Fall	Elk	6	M/ F	Away
1	10/31/2014	4:37 AM	Fall	Elk	3	M/ F	Toward
1	10/31/2014	5:48 PM	Fall	Deer	1	M	Away
1	10/31/2014	6:09 PM	Fall	Elk	3	F	Toward
1	11/1/2014	4:01 AM	Fall	Elk	2	F	Away
1	11/5/2014	7:08 PM	Fall	Deer	1	M	Away
1	11/19/2014	2:11 PM	Fall	Elk	8	F	Toward
1	11/25/2014	12:01 AM	Fall	Elk	3	F	Toward
1	11/27/2014	9:20 AM	Fall	Elk	11	F	Toward
1	12/4/2014	3:13 AM	Winter	Elk	1	U	Toward
1	12/11/2014	4:59 AM	Winter	Deer	2	F	Toward
1	12/11/2014	10:34 AM	Winter	Deer	1	M	Toward
1	12/11/2014	6:11 PM	Winter	Deer	1	M	Away
1	12/11/2014	6:16 PM	Winter	Deer	1	F	Away
1	12/15/2014	11:31 AM	Winter	Deer	1	M	Toward
1	12/20/2014	7:48 PM	Winter	Elk	6	M/ F	Away
1	12/20/2014	8:50 PM	Winter	Elk	2	F	Away
1	12/22/2014	9:34 AM	Winter	Elk	13	F	Away
1	12/23/2014	11:43 PM	Winter	Elk	2	F	Away
1	12/28/2014	9:10 AM	Winter	Elk	2	F	Toward
1	12/28/2014	9:17 AM	Winter	Elk	1	F	Away
1	1/3/2015	8:35 AM	Winter	Elk	1	F	Toward
1	1/26/2015	4:04 PM	Winter	Elk	1	F	Unknown
1	1/26/2015	5:05 PM	Winter	Elk	1	F	Toward

Table 2. Large game detections on Camera 2.

Camera Location	Date	Time	Season	Species Name	Number of animals	Sex	Moving Toward or Away from Pueblo de San Ildefonso
2	7/6/2013	8:14 AM	Summer	Deer	1	M	Unknown
2	7/6/2013	8:15 AM	Summer	Deer	1	M	Unknown
2	7/6/2013	8:16 AM	Summer	Deer	1	M	Unknown
2	8/8/2013	5:31 AM	Summer	Deer	1	M	Toward
2	8/21/2013	7:35 PM	Summer	Deer	1	M	Away
2	8/29/2013	8:03 AM	Summer	Deer	1	M	Unknown
2	8/29/2013	8:31 AM	Summer	Deer	1	M	Unknown
2	10/14/2013	7:11 PM	Fall	Elk	1	U	Away
2	10/26/2013	6:50 PM	Fall	Elk	1	F	Away
2	10/26/2013	6:53 PM	Fall	Elk	1	M	Away
2	11/11/2013	7:14 AM	Fall	Elk	1	F	Unknown
2	11/24/2013	7:05 AM	Fall	Elk	5	U	Toward
2	11/24/2013	1:38 PM	Fall	Elk	17	U	Unknown
2	11/29/2013	1:30 PM	Fall	Elk	8	U	Toward
2	12/8/2013	9:11 AM	Winter	Elk	1	U	Unknown
2	12/8/2013	9:13 AM	Winter	Elk	3	U	Unknown
2	12/8/2013	9:39 AM	Winter	Elk	2	U	Unknown
2	12/9/2013	8:17 AM	Winter	Elk	5	U	Toward
2	12/9/2013	8:30 AM	Winter	Elk	3	U	Toward
2	12/9/2013	8:55 AM	Winter	Elk	4	U	Unknown
2	12/9/2013	9:27 AM	Winter	Elk	1	F	Unknown
2	12/9/2013	10:32 AM	Winter	Elk	2	F	Unknown
2	12/9/2013	10:37 AM	Winter	Elk	1	U	Unknown
2	12/9/2013	10:39 AM	Winter	Elk	1	U	Unknown
2	12/9/2013	10:58 AM	Winter	Elk	30	U	Unknown
2	12/10/2013	5:05 PM	Winter	Elk	2	F	Unknown
2	12/10/2013	5:12 PM	Winter	Elk	1	F	Unknown
2	12/11/2013	12:49 AM	Winter	Elk	1	F	Unknown
2	1/2/2014	9:44 AM	Winter	Elk	20	F	Unknown
2	1/20/2014	1:43 PM	Winter	Deer	1	U	Unknown
2	1/21/2014	7:37 AM	Winter	Deer	1	F	Toward
2	1/29/2014	8:50 AM	Winter	Deer	2	F	Toward
2	2/5/2014	4:47 AM	Winter	Deer	1	M	Toward
2	3/8/2014	5:08 PM	Spring	Elk	2	F	Unknown
2	3/10/2014	6:44 AM	Spring	Elk	1	F	Toward

2	3/12/2014	7:21 AM	Spring	Elk	1	F	Unknown
2	3/13/2014	7:41 AM	Spring	Elk	4	F	Unknown
2	3/19/2014	11:53 PM	Spring	Elk	1	F	Away
2	3/20/2014	7:20 AM	Spring	Elk	3	F	Away
2	3/20/2014	7:29 AM	Spring	Elk	1	F	Away
2	3/20/2014	7:48 AM	Spring	Elk	2	F	Away
2	3/21/2014	6:40 AM	Spring	Elk	3	F	Unknown
2	3/31/2014	7:01 AM	Spring	Elk	1	F	Toward
2	4/7/2014	4:27 PM	Spring	Elk	1	M	Away
2	4/7/2014	5:45 PM	Spring	Elk	3	F	Away
2	4/8/2014	9:26 AM	Spring	Elk	2	F	Unknown
2	4/15/2014	5:52 AM	Spring	Elk	2	F	Toward
2	4/15/2014	5:55 AM	Spring	Elk	1	M	Away
2	4/15/2014	5:55 AM	Spring	Elk	2	F	Unknown
2	4/15/2014	6:03 AM	Spring	Elk	2	F	Toward
2	4/16/2014	5:29 AM	Spring	Elk	1	U	Away
2	4/18/2014	4:37 AM	Spring	Elk	1	F	Toward
2	4/24/2014	4:45 AM	Spring	Elk	1	U	Away
2	4/24/2014	5:57 PM	Spring	Deer	1	F	Away
2	4/29/2014	5:30 AM	Spring	Elk	1	F	Away
2	4/30/2014	6:38 PM	Spring	Elk	4	F	Away
2	5/3/2014	6:12 AM	Spring	Elk	3	F	Toward
2	5/3/2014	6:58 AM	Spring	Elk	15	F	Away
2	5/4/2014	5:05 AM	Spring	Elk	1	F	Unknown
2	5/4/2014	5:16 AM	Spring	Elk	1	F	Unknown
2	5/14/2014	4:40 AM	Spring	Elk	2	F	Unknown
2	5/14/2014	11:31 AM	Spring	Elk	2	F	Unknown
2	5/16/2014	5:19 AM	Spring	Elk	1	F	Unknown
2	5/21/2014	5:08 AM	Spring	Elk	1	U	Unknown
2	8/25/2014	7:16 PM	Summer	Deer	2	M	Away
2	8/28/2014	9:28 AM	Summer	Deer	3	M	Unknown
2	8/29/2014	8:40 AM	Summer	Deer	2	M	Toward
2	8/29/2014	9:53 AM	Summer	Deer	1	M	Toward
2	9/5/2014	6:35 AM	Fall	Elk	1	M	Toward
2	9/10/2014	4:13 AM	Fall	Elk	1	M	Toward
2	9/10/2014	4:41 AM	Fall	Elk	1	U	Unknown
2	9/20/2014	9:17 AM	Fall	Deer	1	M	Unknown
2	9/21/2014	7:28 AM	Fall	Elk	2	M/F	Unknown
2	9/27/2014	12:57 PM	Fall	Deer	1	M	Unknown
2	10/2/2014	2:51 AM	Fall	Elk	4	M/F	Unknown
2	10/3/2014	7:00 PM	Fall	Elk	1	F	Away

2	10/6/2014	10:11 AM	Fall	Deer	1	F	Toward
2	10/14/2014	2:50 AM	Fall	Elk	1	U	Unknown
2	10/14/2014	8:59 AM	Fall	Deer	1	M	Unknown
2	10/22/2014	2:53 PM	Fall	Elk	1	F	Toward
2	10/26/2014	11:10 AM	Fall	Deer	1	M	Away
2	10/30/2014	5:55 PM	Fall	Elk	1	M/F	Away
2	10/31/2014	6:09 PM	Fall	Elk	2	F	Toward
2	11/20/2014	10:48 AM	Fall	Elk	8	F	Toward
2	11/27/2014	9:22 AM	Fall	Elk	1	F	Unknown
2	12/20/2014	7:46 PM	Winter	Elk	4	M/F	Away
2	1/3/2015	8:36 AM	Winter	Elk	1	F	Away
2	1/26/2015	4:04 PM	Winter	Elk	1	F	Away
2	2/14/2015	8:57 AM	Winter	Elk	1	F	Toward
2	2/17/2015	12:09 AM	Winter	Elk	4	F	Away
2	2/21/2015	8:28 AM	Winter	Deer	5	F	Toward
2	3/2/2015	8:44 AM	Spring	Elk	1	F	Toward
2	Unknown	1:02 PM		Elk	2	F	Unknown
2	Unknown	10:22 PM		Elk	3	F	Unknown
2	Unknown	7:15 AM		Deer	1	M	Unknown
2	Unknown	10:14 AM		Deer	1	U	Toward
2	Unknown	4:12 AM		Elk	1	F	Away
2	Unknown	8:27 AM		Elk	6	M/F	Toward
2	Unknown	7:55 AM		Deer	1	M	Away
2	Unknown	7:43 AM		Deer	1	M	Away
2	Unknown	7:14 AM		Deer	1	U	Away
2	Unknown	4:16 AM		Deer	1	M	Away
2	Unknown	8:06 PM		Elk	2	F	Unknown
2	Unknown	9:18 AM		Deer	4	M	Away
2	Unknown	6:34 AM		Deer	2	M	Away
2	Unknown	6:44 AM		Deer	1	M	Unknown
2	Unknown	2:42 PM		Elk	1	F	Unknown
2	Unknown	8:20 AM		Deer	1	M	Unknown
2	Unknown	5:53 AM		Elk	1	F	Toward
2	Unknown	12:09 AM		Deer	1	F	Unknown
2	Unknown	8:00 AM		Deer	1	M	Unknown

Table 3. Large game detections on Camera 3.

Camera Location	Date	Time	Season	Species Name	Number of animals	Sex	Moving Toward or Away from Pueblo de San Ildefonso
3	4/9/2012	7:48 PM	Spring	Deer	1	U	Toward
3	12/12/2012	8:07 AM	Winter	Deer	1	M	Away
3	4/24/2013	4:53 PM	Spring	Elk	2	F	Away
3	5/3/2013	10:30 AM	Spring	Deer	1	F	Away
3	5/10/2013	5:41 PM	Spring	Elk	1	F	Away
3	5/10/2013	8:09 PM	Spring	Deer	1	F	Away
3	5/13/2013	7:38 AM	Spring	Elk	1	F	Toward
3	5/13/2013	7:40 AM	Spring	Elk	1	F	Toward
3	5/13/2013	11:25 PM	Spring	Elk	1	F	Toward
3	5/25/2013	8:16 PM	Spring	Elk	2	F	Away
3	5/26/2013	8:03 AM	Spring	Elk	1	F	Toward
3	5/31/2013	7:08 AM	Spring	Elk	2	F	Toward
3	5/31/2013	9:49 PM	Spring	Elk	1	F	Toward
3	6/2/2013	9:55 PM	Summer	Elk	1	F	Away
3	6/10/2013	1:22 AM	Summer	Elk	1	F	Toward
3	6/10/2013	3:45 AM	Summer	Elk	1	F	Toward
3	6/10/2013	8:25 AM	Summer	Elk	1	F	Toward
3	6/11/2013	1:25 AM	Summer	Elk	1	F	Away
3	6/12/2013	9:41 PM	Summer	Elk	2	F	Away
3	6/14/2013	3:02 PM	Summer	Elk	1	U	Away
3	6/26/2013	7:57 PM	Summer	Elk	1	F	Away
3	8/29/2013	3:42 AM	Summer	Deer	1	F	Away
3	8/29/2013	3:42 AM	Summer	Deer	1	M	Away
3	9/22/2013	1:40 AM	Fall	Elk	1	M	Toward
3	9/26/2013	9:44 AM	Fall	Deer	1	F	Toward
3	10/4/2013	6:47 AM	Fall	Deer	1	F	Toward
3	10/15/2013	1:40 AM	Fall	Deer	1	M	Away
3	10/15/2013	5:30 AM	Fall	Deer	1	M	Toward
3	10/22/2013	7:46 AM	Fall	Elk	1	U	Toward
3	10/22/2013	7:46 AM	Fall	Elk	2	F	Toward
3	10/22/2013	7:47 AM	Fall	Elk	2	F	Toward
3	11/1/2013	8:26 AM	Fall	Elk	1	F	Unknown
3	11/1/2013	8:29 AM	Fall	Elk	1	M	Unknown
3	11/3/2013	7:08 AM	Fall	Elk	1	M	Toward
3	11/3/2013	4:59 PM	Fall	Elk	1	M	Away

3	11/14/2013	7:39 AM	Fall	Elk	1	U	Toward
3	11/14/2013	7:39 AM	Fall	Elk	1	F	Toward
3	11/14/2013	7:39 AM	Fall	Elk	2	U	Toward
3	11/14/2013	7:39 AM	Fall	Elk	15	U	Toward
3	11/16/2013	7:36 AM	Fall	Elk	1	U	Away
3	11/17/2013	7:37 AM	Fall	Elk	99	U	Toward
3	11/20/2013	10:10 PM	Fall	Elk	1	U	Toward
3	11/30/2013	6:32 PM	Fall	Elk	27	U	Away
3	12/6/2013	3:00 PM	Winter	Elk	1	M	Toward
3	12/8/2013	1:53 AM	Winter	Elk	1	M	Toward
3	12/17/2013	4:10 PM	Winter	Elk	14	U	Away
3	12/19/2013	2:26 AM	Winter	Elk	1	M	Away
3	12/26/2013	7:44 AM	Winter	Deer	1	M	Away
3	1/8/2014	7:23 AM	Winter	Elk	1	U	Toward
3	1/8/2014	7:26 AM	Winter	Elk	1	F	Toward
3	1/8/2014	7:29 AM	Winter	Elk	4	F	Toward
3	1/9/2014	4:50 PM	Winter	Elk	1	F	Away
3	1/9/2014	5:31 PM	Winter	Elk	1	F	Away
3	1/10/2014	6:05 PM	Winter	Elk	1	U	Away
3	1/12/2014	5:56 PM	Winter	Elk	1	U	Away
3	1/16/2014	7:12 AM	Winter	Deer	2	M/F	Toward
3	1/16/2014	12:45 PM	Winter	Elk	2	F	Toward
3	1/16/2014	12:46 PM	Winter	Elk	2	F	Toward
3	1/16/2014	1:26 PM	Winter	Elk	2	M/F	Toward
3	1/21/2014	5:44 AM	Winter	Elk	1	F	Toward
3	1/27/2014	7:57 AM	Winter	Deer	1	M	Away
3	2/2/2014	7:34 AM	Winter	Deer	2	M	Away
3	2/3/2014	8:00 PM	Winter	Deer	1	F	Away
3	2/9/2014	6:35 PM	Winter	Elk	1	U	Away
3	2/27/2014	9:39 AM	Winter	Elk	1	F	Toward
3	2/27/2014	9:43 AM	Winter	Elk	1	F	Away
3	3/3/2014	8:49 AM	Spring	Elk	16	F	Toward
3	3/9/2014	9:05 AM	Spring	Elk	1	F	Away
3	3/9/2014	9:40 AM	Spring	Elk	19	M/F	Toward
3	3/13/2014	8:10 AM	Spring	Elk	1	F	Toward
3	3/13/2014	8:11 AM	Spring	Elk	1	F	Toward
3	3/13/2014	8:47 AM	Spring	Elk	33	F	Toward
3	4/7/2014	11:27 AM	Spring	Elk	2	F	Toward
3	4/7/2014	11:30 AM	Spring	Elk	2	F	Toward
3	4/10/2014	6:46 AM	Spring	Deer	1	U	Toward
3	4/15/2014	7:23 AM	Spring	Elk	1	F	Away

3	4/16/2014	6:52 AM	Spring	Elk	2	F	Toward
3	4/20/2014	8:12 AM	Spring	Elk	3	F	Toward
3	4/21/2014	7:21 AM	Spring	Elk	7	F	Toward
3	4/29/2014	7:35 AM	Spring	Elk	4	F	Toward
3	5/2/2014	6:21 AM	Spring	Elk	1	F	Toward
3	5/2/2014	6:22 AM	Spring	Elk	17	M/F	Toward
3	5/4/2014	5:04 AM	Spring	Elk	1	F	Toward
3	5/16/2014	6:19 AM	Spring	Elk	2	F	Toward
3	5/16/2014	5:49 PM	Spring	Elk	1	U	Toward
3	5/17/2014	6:03 AM	Spring	Elk	1	F	Toward
3	5/23/2014	7:22 AM	Spring	Elk	1	F	Toward
3	6/11/2014	6:49 PM	Summer	Deer	1	M	Toward
3	6/11/2014	7:56 AM	Summer	Deer	1	M	Away
3	11/18/2014	7:30 AM	Fall	Elk	1	M	Toward
3	11/18/2014	2:43 PM	Fall	Elk	7	F	Toward
3	12/12/2014	3:05 PM	Winter	Deer	1	M	Toward
3	12/24/2014	10:34 PM	Winter	Elk	1	F	Away
3	12/28/2014	9:59 AM	Winter	Elk	48	F	Toward
3	12/31/2014	2:21 PM	Winter	Elk	14	F	Toward
3	1/19/2015	6:59 PM	Winter	Deer	2	F	Away
3	1/23/2015	3:43 PM	Winter	Elk	1	F	Toward

Table 4. Large game detections on Camera 4.

Camera Location	Date	Time	Season	Species Name	Number of animals	Sex	Moving Toward or Away from Pueblo de San Ildefonso
4	8/6/2012	7:41 PM	Summer	Deer	1	M	Away
4	3/4/2014	8:52 AM	Spring	Elk	2	F	Toward
4	3/7/2014	8:24 AM	Spring	Elk	5	F	Toward
4	3/11/2014	5:49 AM	Spring	Elk	2	F	Away
4	3/28/2014	8:17 AM	Spring	Elk	1	F	Toward
4	4/3/2014	11:30 PM	Spring	Elk	1	F	Toward
4	4/4/2014	9:00 PM	Spring	Elk	1	F	Toward
4	4/7/2014	7:18 PM	Spring	Elk	1	F	Away
4	4/7/2014	7:27 PM	Spring	Elk	1	F	Unknown
4	4/7/2014	12:01 PM	Spring	Elk	1	F	Away
4	4/13/2014	9:32 PM	Spring	Elk	1	F	Toward
4	4/14/2014	6:54 PM	Spring	Elk	2	F	Toward
4	4/21/2014	9:37 AM	Spring	Deer	1	F	Away
4	4/23/2014	6:38 PM	Spring	Deer	2	F	Toward
4	4/24/2014	12:01 AM	Spring	Elk	1	F	Toward
4	5/27/2014	6:54 AM	Spring	Deer	2	F	Toward
4	5/27/2014	6:58 AM	Spring	Elk	1	F	Toward
4	5/27/2014	7:33 PM	Spring	Elk	1	F	Toward
4	5/28/2014	5:22 AM	Spring	Deer	1	F	Away
4	5/28/2014	9:27 PM	Spring	Elk	1	U	Toward
4	5/28/2014	9:28 PM	Spring	Elk	1	F	Away
4	5/29/2014	4:11 AM	Spring	Elk	1	F	Away
4	6/4/2014	1:08 AM	Summer	Elk	1	F	Toward
4	6/6/2014	8:37 PM	Summer	Deer	3	M/F	Away
4	6/7/2014	10:19 PM	Summer	Deer	1	F	Toward
4	6/7/2014	10:47 PM	Summer	Elk	1	F	Toward
4	6/10/2014	3:50 AM	Summer	Elk	2	F	Toward
4	6/10/2014	5:20 AM	Summer	Elk	4	F	Unknown
4	6/11/2014	2:25 AM	Summer	Elk	1	F	Toward
4	6/21/2014	6:57 PM	Summer	Elk	7	F	Toward
4	6/24/2014	4:58 AM	Summer	Deer	1	M	Away
4	6/24/2014	8:29 PM	Summer	Elk	15	F	Toward
4	6/26/2014	7:15 PM	Summer	Elk	2	F	Away
4	7/5/2014	12:57 AM	Summer	Elk	1	F	Away
4	7/5/2014	2:28 AM	Summer	Elk	1	F	Unknown

4	7/11/2014	5:17 PM	Summer	Elk	2	F	Away
4	7/20/2014	6:44 AM	Summer	Elk/Deer	2	F	Toward
4	7/20/2014	8:44 PM	Summer	Elk	4	M	Away
4	7/26/2014	6:51 AM	Summer	Deer	3	M/F	Toward
4	7/28/2014	7:07 AM	Summer	Deer	1	M	Toward
4	7/29/2014	8:33 AM	Summer	Deer	1	F	Unknown
4	7/30/2014	5:39 AM	Summer	Deer	3	M/F	Away
4	7/30/2014	6:27 AM	Summer	Deer	1	M	Away
4	7/31/2014	7:00 AM	Summer	Deer	1	F	Away
4	8/2/2014	5:56 AM	Summer	Deer	1	M	Unknown
4	8/4/2014	9:15 AM	Summer	Deer	1	F	Away
4	8/13/2014	9:44 AM	Summer	Deer	2	M	Toward
4	8/14/2014	8:57 AM	Summer	Deer	1	M	Away
4	8/15/2014	6:10 AM	Summer	Elk	1	F	Away
4	8/15/2014	6:11 AM	Summer	Elk	1	F	Unknown
4	8/17/2014	6:39 AM	Summer	Elk	2	M	Away
4	8/17/2014	9:16 PM	Summer	Elk	2	M	Away
4	8/17/2014	11:22 PM	Summer	Elk	1	M	Toward
4	8/18/2014	4:01 AM	Summer	Elk	2	F	Toward
4	8/20/2014	5:14 AM	Summer	Deer	1	M	Away
4	8/24/2014	6:06 AM	Summer	Deer	1	M	Away
4	8/25/2014	7:43 AM	Summer	Deer	1	F	Toward
4	8/28/2014	5:55 AM	Summer	Deer	1	F	Away
4	8/29/2014	7:28 PM	Summer	Deer	1	M	Toward
4	8/29/2014	7:49 PM	Summer	Deer	1	M	Toward
4	8/30/2014	7:51 AM	Summer	Deer	4	M	Away
4	8/30/2014	7:37 PM	Summer	Deer	2	M	Toward
4	9/2/2014	6:17 AM	Fall	Deer	2	M	Toward
4	9/10/2014	7:40 AM	Fall	Deer	2	M/F	Toward
4	9/10/2014	6:27 PM	Fall	Deer	1	F	Away
4	9/12/2014	2:25 AM	Fall	Deer	2	M	Away
4	9/23/2014	6:30 AM	Fall	Deer	1	M	Away
4	9/24/2014	12:10 AM	Fall	Deer	1	U	Away
4	9/28/2014	2:08 AM	Fall	Deer	2	U	Away
4	10/1/2014	9:24 PM	Fall	Deer	1	U	Away
4	10/4/2014	6:25 AM	Fall	Deer	1	U	Away
4	10/4/2014	6:57 AM	Fall	Deer	2	M/F	Away
4	10/6/2014	11:09 PM	Fall	Deer	1	F	Away
4	10/7/2014	6:23 AM	Fall	Deer	1	M	Toward
4	10/7/2014	7:55 AM	Fall	Deer	4	M	Toward
4	10/8/2014	3:08 AM	Fall	Deer	3	M	Away

4	10/8/2014	7:53 PM	Fall	Deer	1	M	Toward
4	10/12/2014	7:27 PM	Fall	Elk	1	F	Away
4	10/14/2014	6:32 PM	Fall	Deer	2	U	Toward
4	10/16/2014	8:14 AM	Fall	Deer	3	M	Away
4	10/25/2014	4:30 AM	Fall	Deer	2	M	Away
4	10/25/2014	8:31 AM	Fall	Deer	1	M	Away
4	11/11/2014	4:36 PM	Fall	Deer	2	F	Toward
4	11/12/2014	12:07 AM	Fall	Elk	3	F	Away
4	12/3/2014	5:15 AM	Winter	Elk	1	M	Toward
4	12/4/2014	10:00 PM	Winter	Elk	8	F	Away
4	12/16/2014	9:58 AM	Winter	Deer	2	M/F	Toward
4	12/16/2014	4:40 PM	Winter	Deer	1	M	Away
4	12/18/2014	4:37 PM	Winter	Deer	1	M	Toward
4	1/3/2015	4:13 PM	Winter	Elk	7	F	Toward
4	1/3/2015	11:52 PM	Winter	Elk	2	F	Away
4	1/13/2015	8:45 AM	Winter	Elk	5	F	Toward
4	2/9/2015	7:04 AM	Winter	Deer	3	U	Unknown

Table 5. Large game detections on Camera 5.

Camera Location	Date	Time	Season	Species Name	Number of animals	Sex	Moving Toward or Away from Pueblo de San Ildefonso
5	1/24/2014	4:31 PM	Winter	Elk	1	M	Toward
5	1/24/2014	4:24 PM	Winter	Elk	1	M	Away
5	2/3/2014	1:51 AM	Winter	Deer	1	F	Toward
5	2/10/2014	11:54 AM	Winter	Elk	4	F	Toward
5	2/12/2014	10:33 AM	Winter	Elk	1	F	Away
5	2/19/2014	6:06 AM	Winter	Deer	1	F	Unknown
5	2/22/2014	8:51 AM	Winter	Elk	4	F	Toward
5	2/23/2014	11:59 AM	Winter	Elk	4	U	Away
5	2/23/2014	12:12 PM	Winter	Elk	4	U	Toward
5	2/23/2014	1:24 PM	Winter	Elk	1	F	Away
5	2/23/2014	6:35 PM	Winter	Elk	1	F	Away
5	2/25/2014	7:59 AM	Winter	Elk	5	F	Toward
5	2/26/2014	6:40 AM	Winter	Elk	1	F	Toward
5	2/28/2014	6:19 PM	Winter	Elk	1	F	Away
5	2/28/2014	7:32 PM	Winter	Elk	1	F	Away
5	3/1/2014	2:11 AM	Spring	Deer	3	F	Toward
5	3/1/2014	6:31 AM	Spring	Elk	4	F	Toward
5	3/12/2014	7:16 AM	Spring	Elk	3	F	Toward
5	3/19/2014	6:10 PM	Spring	Deer	6	F	Toward
5	3/24/2014	7:35 AM	Spring	Elk	2	F	Away
5	3/25/2014	1:11 AM	Spring	Deer	2	M/F	Toward
5	3/25/2014	3:50 AM	Spring	Deer	4	F	Away
5	3/29/2014	9:35 AM	Spring	Elk	4	F	Unknown
5	3/29/2014	11:08 PM	Spring	Elk	1	F	Away
5	3/30/2014	8:04 PM	Spring	Elk	3	F	Away
5	3/31/2014	7:35 PM	Spring	Elk	1	U	Away
5	4/3/2014	1:27 AM	Spring	Elk	4	F	Unknown
5	4/4/2014	8:59 AM	Spring	Elk	5	F	Toward
5	4/5/2014	9:07 AM	Spring	Elk	3	F	Away
5	4/7/2014	8:06 AM	Spring	Elk	7	U	Away
5	4/8/2014	4:36 PM	Spring	Elk	1	U	Toward
5	4/8/2014	6:00 PM	Spring	Deer	6	M/F	Away
5	4/8/2014	6:03 PM	Spring	Deer	4	M/F	Toward
5	4/8/2014	6:32 PM	Spring	Deer/Elk	7	M/F	Unknown
5	4/10/2014	10:34 AM	Spring	Elk	4	F	Toward

5	4/11/2014	1:13 AM	Spring	Elk	1	F	Away
5	4/12/2014	7:42 AM	Spring	Elk	1	F	Toward
5	4/13/2014	12:31 PM	Spring	Elk	1	F	Away
5	4/14/2014	7:14 PM	Spring	Elk	1	F	Unknown
5	4/17/2014	6:52 AM	Spring	Elk	3	F	Toward
5	4/20/2014	7:38 AM	Spring	Elk	3	F	Toward
5	4/20/2014	8:39 PM	Spring	Elk	1	F	Away
5	4/23/2014	10:32 AM	Spring	Elk	3	F	Toward
5	4/23/2014	6:09 PM	Spring	Elk	2	F	Away
5	4/24/2014	7:01 AM	Spring	Elk	2	U	Toward
5	4/24/2014	7:19 AM	Spring	Elk	1	U	Toward
5	4/26/2014	7:40 AM	Spring	Elk	5	U	Toward
5	5/3/2014	7:26 PM	Spring	Elk	1	U	Unknown
5	5/6/2014	5:21 PM	Spring	Elk	10	U	Toward
5	5/8/2014	6:33 AM	Spring	Elk	1	U	Toward
5	5/9/2014	8:16 AM	Spring	Elk	3	U	Away
5	5/11/2014	7:15 AM	Spring	Elk	3	U	Toward
5	5/11/2014	9:28 PM	Spring	Elk	1	U	Away
5	5/19/2014	8:33 PM	Spring	Elk	1	U	Away
5	5/23/2014	6:11 AM	Spring	Elk	1	U	Away
5	5/28/2014	6:41 AM	Spring	Elk	2	U	Toward
5	5/29/2014	6:57 AM	Spring	Elk	1	U	Toward
5	5/30/2014	6:19 PM	Spring	Elk	1	U	Toward
5	6/1/2014	9:14 PM	Summer	Deer	3	U	Away
5	6/2/2014	8:26 PM	Summer	Elk	1	F	Away
5	6/10/2014	10:32 PM	Summer	Elk	1	F	Toward
5	6/12/2014	9:42 PM	Summer	Elk	1	F	Toward
5	6/16/2014	6:02 PM	Summer	Elk	2	F	Away
5	6/18/2014	9:22 AM	Summer	Elk	16	M/F	Toward
5	6/19/2014	5:03 PM	Summer	Elk	2	F	Away
5	6/19/2014	8:36 PM	Summer	Elk	1	F	Toward
5	6/19/2014	9:05 PM	Summer	Elk	12	F	Away
5	6/20/2014	7:47 AM	Summer	Elk	3	F	Away
5	6/20/2014	5:28 PM	Summer	Elk	1	F	Away
5	6/22/2014	6:20 AM	Summer	Elk	1	F	Toward
5	6/23/2014	7:09 PM	Summer	Elk	3	F	Toward
5	6/27/2014	8:03 PM	Summer	Elk	1	F	Toward
5	7/10/2014	12:08 PM	Summer	Elk	30	M/F	Away
5	7/18/2014	7:20 AM	Summer	Elk	2	F	Toward
5	7/29/2014	9:13 AM	Summer	Deer	1	M/F	Toward
5	8/7/2014	12:34 PM	Summer	Elk	30	U	Toward

5	8/7/2014	2:42 PM	Summer	Elk	4	F	Away
5	8/7/2014	6:44 PM	Summer	Elk	1	F	Unknown
5	8/7/2014	6:51 PM	Summer	Elk	1	F	Unknown
5	8/7/2014	7:06 PM	Summer	Elk	1	F	Away
5	8/7/2014	7:44 PM	Summer	Elk	3	F	Away
5	8/7/2014	7:53 PM	Summer	Elk	1	M	Away